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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,129	07/11/2003	Rodney C. Hemminger	ELSE-0818	4421
23377	7590	08/23/2004	EXAMINER	
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR 1650 MARKET STREET PHILADELPHIA, PA 19103			KOBERT, RUSSELL MARC	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/618,129	Applicant(s) HEMMINGER ET AL.	
	Examiner Russell M Kobert	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-9, 11 and 13-18 is/are rejected.
- 7) ☒ Claim(s) 10, 12 and 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1003</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claim 7 contains limitations directed to intended use such as "for measuring," and "capable of." In consideration of the limitations as claimed, no patentable weight has been given to the functional language "for measuring electrical energy usage over a wide range of service voltages," "capable of receiving any service voltage in said wide range," and "capable of receiving any service voltage in said wide range."

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 7-9, 11, 14, 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lusignan et al (5391983).

Lusignan et al anticipates an electrical energy meter *for* measuring electrical energy usage over a wide range of service voltages, comprising:

at least one resistive voltage divider (noted as VOLTAGE DIVIDER in Figure 3) that is *capable of* receiving any service voltage in said wide range and scaling the received service voltage to provide a scaled voltage, wherein the

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scaled voltage does not exceed a maximum peak-to-peak value for any received service voltage within the wide range of standard service voltages; and

a power supply (30) that is *capable of* receiving any service voltage in said wide range and producing therefrom a supply voltage used within said electrical energy meter; as recited in claim 7.

As to claim 8, further defining the resistive voltage divider as a resistor network (note configuration of resistors 21, 22, 23, 36, 38, 40) that outputs a fraction of the standard service voltage and a predetermined reference voltage is anticipated.

As to claim 9, further defining the power supply comprising a transformer (see Figure 2) having first (Lines 1, 2 and 3) and second windings (16, 17 and 18), wherein the first winding receives an input voltage based on the wide dynamic range of standard service voltages so that current flows through the first winding, and wherein the second winding provides the output of the power supply, and wherein the output of the power supply is regulated (see diodes and power supplies 30A and 30B in Figure 8) to provide a predetermined output voltage independent of the type of wide dynamic range of standard service voltages.

As to claim 14, having a scaling resistor as a metal film resistor is anticipated (see col 4, ln 24-25).

As to claim 16, having a processing means (60 and 62) coupled to the resistive voltage divider means (VOLTAGE DIVIDER) for receiving an input of

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the scaled voltage and for processing the scaled voltage to generate an output signal representative of the electrical energy usage is anticipated.

As to claims 11, 17 and 18, no patentable weight has been given to the additional limitations, as they are dependent on language directed to intended use stated in claim 7. As such, the limitations of claims 11, 17 and 18 are considered be equivalent to that described in parent claim 7.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lusignan et al (5391983).

Although Lusignan et al fails to describe that the scaling resistors scales the input voltage to about 1 Volt peak-to-peak as mentioned in claim 13 or each of the resistive dividers comprising two resistors in series, each resistor having the same resistance and watt loss as mentioned in claim 15, Lusignan et al does show:

A first scaling resistor coupled to the first resistive divider;

A second scaling resistor coupled to the second resistive divider; and

A third scaling resistor coupled to the third resistive divider; as mentioned in claim 13.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the values of the scaling resistors to produce a 1 Volt peak-to-peak signal as mentioned in claim 13 and to have configured the resistive dividers to two resistors in series each resistor having the same resistance or watt loss because Lusignan et al teaches that for applications of higher current or voltage the resistor values may be changed (see col 4, ln 34-36). Moreover, to configure the resistors to a set of values to obtain a desired result are limiting conditions determined by routine experimentation and are considered to be within the scope of the invention as disclosed in Lusignan et al.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine

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experimentation. In re Swain et al., 33 C.C.P.A. (Patents) 1250, 156 F. 2d 239, 70 USPQ 412 ; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C. 217, 99 F. 2d 986, 38 USPQ 213 ; Allen et al. v. Coe, 77 App. D. C. 324, 135 F. 2d 11, 57 USPQ 136 .

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims 10, 12 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A power supply having first, second and third windings wherein the third winding generates a control signal as a function of the current flowing through the first winding, and wherein the flow of current through the first winding is adjusted as a function of the control signal thereby regulating the output of the power supply on the second winding to a predetermined output voltage independent of the input voltage as emphasized in claim 10 has not been found.

A resistive divider comprising first, second and third resistive dividers having a resistance of approximately 2 Megaohms as emphasized in claim 12 has not been found.

Having 4-wire service as either a 4-wire delta or 4-wire wye wherein the meter requires no hardware modification, software modification or reprogramming as emphasized in claim 19 has not been found.

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Having the meter requiring no hardware modification, software modification or reprogramming to accommodate a range of voltages as emphasized in claims 20 and 21 has not been found.

It is further noted that the examiner's reasons are understood to be predicated upon consideration of each of the claims as a whole, and not upon any specific elements of the claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schreiber et al (5373410) shows a resistive divider network for a multimeter.

9. The information disclosure statement filed October 14, 2003 fails in-part to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because:

- It fails to include a legible copy of each foreign patent and publication or that portion which caused it to be listed,
- A concise explanation of the relevance, as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. The concise explanation may be either separate from applicant's specification or incorporated therein.
- A copy of the translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession,

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custody, or control of, or is readily available to any individual designated in § 1.56(c).

- other patents or publications are cumulative.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits with exception to any cited U.S. Patent. It is noted however, foreign patents and documents cited that include a legible copy of the same have been considered. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

10. A shortened statutory period for response to this action is set to expire three month(s) from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963. The Examiner's Supervisor, Kammie Cuneo, can be reached at (571) 272-1957. For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert
Patent Examiner
Group Art Unit 2829
August 13, 2004



DAVID ZARNEKE
PRIMARY EXAMINER

8/18/04